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Docket No. 408445

OCT 11 2006

**REMARKS**

Claims 1-16 and 18-21 are pending in the application. Claims 1, 4, and 18 are currently amended.

Claims 1 and 4 have been amended to add a further limitation that the two direct repeats containing a gene of interest which includes a nucleic acid sequence encoding a protein. These amendments are made to for purpose of clarification only because a gene by definition contains a nucleic acid sequence encoding a protein. The original specification discloses that the direct repeats of a gene of interest and that the gene of interest may include nucleic acid sequences encoding proteins (See paragraph 38 of the original application). Therefore, these amendments do not introduce new matter into the application by adding a further limitation to the claims. Claim 18 has been amended to correct and typographical error.

**Claim Rejections—35 U.S.C. §103(a)**

Claims 1, 4, 6, 10, 12, 14, 15 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,534,315 issued to Bauer in view of Ow (WO 93/01283). Applicant respectfully disagrees with Examiner because the cited references taken as a whole do not teach or suggest all the claim limitations of the amended claims.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *See* MPEP 2143.03. In the Response filed on June 2, 2006 Applicant stated that "[a]pplicant agrees with Examiner in that Bauer teaches a genetic construct comprising a positive selectable marker, a negative selectable marker and direct repeat sequences (or DRSs) of a gene of interest" was a misstatement due to a typo and is hereby expressly corrected. What Applicant intended to state in that Response was that "[a]pplicant agrees with Examiner in that Bauer teaches a genetic construct comprising a positive selectable marker, a negative selectable marker, direct repeat sequences (or DRSs) and a gene of interest" (See also lines 1-15, Col. 4 of Bauer). The major difference between the present invention and Bauer is that Bauer does not teach direct repeats of the gene of interest (GI). Instead, Bauer teaches that the DRS sequence is noncoding and that "noncoding sequence" means a sequence is not translated into the form of a peptide (Lines 45-48, Col. 4 of Bauer). According to Bauer, the GI or GIs may be placed between a DRS and the adjacent recombinogenic sequence (RS).

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However, Bauer fails to teach or suggest use of direct repeats of any given GI or GIs. Lines 1-15 in Col. 4 of Bauer support the notion that Bauer contemplates the direct repeats and the gene of interest as two distinct elements on the construct.

Although Bauer indicates that it is possible to use a fragment of a gene as DRS (See lines 5-6, Col. 7 of Bauer), Bauer specifically teaches that the DRS should be noncoding and appropriate means should be used "such as changing the reading frame or the introduction of stop codons." (See lines 22-28, Col. 7 of Bauer). One of skills would learn from Bauer that it is possible to use a gene fragment as DRS, and that efforts should be made to prevent such gene fragment from being translated into the form of a peptide.

By contrast, the instant application teaches and claims a construct with a positive marker, a negative marker, and direct repeat sequences (or DRSs) of a gene of interest (See paragraph 22 of the original application). Since a gene by definition is "[a] functional unit of heredity which ... directs the formation of an enzyme or other protein." (Stedman's Medical Dictionary, 26<sup>th</sup> ed. Williams and Wilkins, 1995), and the direct repeats of the instant application contain a gene of interest, it follows that the direct repeats of the present claims contain at least one coding sequence that encodes a protein. Therefore, the construct of Claims 1-16 and 18-21 differs from the Bauer construct because the Bauer construct contains only one copy of any given gene of interest and the DRSs in the Bauer construct do not contain a coding sequence. Indeed, Bauer teaches away from the present invention which teaches that the DRSs contain a gene of interest encoding a functional protein.

Although Ow teaches a method for producing marker-free transgenic plants wherein a selectable marker gene is flanked by site specific recombination sites and excised using a site specific recombinase, nothing is mentioned in Ow that suggests the use of two direct repeats of a gene of interest. Lacking any teaching or suggestion of the use of two direct DNA repeats containing a nucleic acid sequence capable of coding for a protein, Bauer and Ow, considered as a whole, do not render the amended Claims 1 and 4 obvious. Claims 2-7, 10-16 and 18 depend from either Claim 1 or Claim 4 directly or indirectly. Withdrawal of the obviousness rejections is respectfully requested.

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**Claim Rejections—35 U.S.C. §112 first paragraph**

Claims 1-7 and 10-16 and 18 stand rejected under 35 U.S.C. §112 first paragraph as failing to comply with the written description requirement. The limitation “from an organism other than yeast” has been deleted by amendment. Withdrawal of the §112 first paragraph rejections is respectfully requested.

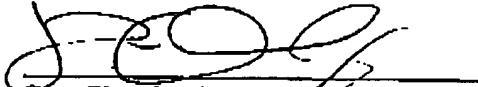
**Claim Rejections—35 U.S.C. §112 second paragraph**

Claim 18 is rejected under 35 U.S.C. §112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 18 has been amended to correct the typographical error.

Based upon the foregoing discussion, Applicant's attorney submits that the amended claims are in a form for allowance and respectfully solicits a Notice of Allowance. Applicant believes no fee is due for this filing, but the Commissioner is authorized to charge any required fees to deposit account 12-0600.

Respectfully submitted,

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